

### **Amendments to the Claims:**

This listing of claims will replace all prior versions of claims in the present application:

1. (Currently Amended) A method for increasing performance within a multicast network in which a server transfers multicast packets to a master client and at least one passive client, the method comprising ~~the steps of:~~

(a) determining, by the passive clients during the multicast transfer, which is a slowest client based on which passive client drops a highest number of packets; and

(b) making the slowest passive client the master client, thereby adaptively determining which client becomes the master client to minimize network traffic when the slowest passive device is slower than the master client and not assigning the slowest passive client as master client when the slowest passive client is faster than the master client, and

wherein determining, by the passive clients during the multicast transfer, which is a slowest client based on which passive client drops a highest number of packets further includes ~~the step of:~~

(i) counting, by the passive client, a number of dropped packets during a multicast transfer;

(ii) computing a drop ratio when the count of the number of dropped packets reaches a predetermined count threshold; and

(iii) if the drop ratio reaches a configurable threshold, sending a Force Master command to the server requesting to become a new master client.

2. (Cancelled)

3. (Currently Amended) The method of claim 2 1 wherein ~~step (b)~~ making  
the slowest passive client the master client, thereby adaptively determining which client  
becomes the master client to minimize network traffic when the slowest passive device is  
slower than the master client and not assigning the slowest passive client as master client  
when the slowest passive client is faster than the master client further includes ~~the step~~  
of:

(i) in response to the server receiving the Force Master command,  
sending a Drop Master command from the server to the master client.

4. (Currently Amended) The method of claim 3 wherein ~~step (b)~~ making  
the slowest passive client the master client, thereby adaptively determining which client  
becomes the master client to minimize network traffic when the slowest passive device is  
slower than the master client and not assigning the slowest passive client as master client  
when the slowest passive client is faster than the master client further includes  
~~the step of:~~

(ii) sending from the master client to the server a Drop Master  
acknowledgement and causing the master client to enter passive client mode.

5. (Currently Amended) The method of claim 4 wherein ~~step (b)~~ making the slowest  
passive client the master client, thereby adaptively determining which client becomes the  
master client to minimize network traffic when the slowest passive device is slower than  
the master client and not assigning the slowest passive client as master client when the

slowest passive client is faster than the master client further includes ~~the step of~~:

(iii) restarting the drop packet counter in the passive client after the Drop Master command has been sent from the server.

6. (Currently Amended) The method of claim 5 wherein ~~step (b)~~ making the slowest passive client the master client, thereby adaptively determining which client becomes the master client to minimize network traffic when the slowest passive device is slower than the master client and not assigning the slowest passive client as master client when the slowest passive client is faster than the master client further includes ~~the step of~~:

(iv) sending from the server a Force Master acknowledge to the passive client that issued the Force Master command.

7. (Currently Amended) A method for increasing performance within a multicast network in which a server transfers multicast packets to a master client and at least one passive client, comprising ~~the steps of~~:

(a) counting, by the passive client, a number of packets dropped during a multicast transfer;

(b) computing a drop ratio when the count of the number of packets dropped reaches a predetermined count threshold; and

(c) if the drop ratio reaches a configurable threshold, sending a Force Master command to the server requesting to become a new master client, thereby adaptively determining which client becomes the master client in real-time unless the passive client is faster than the current master client.

8. (Currently Amended) The method of claim 0 further including ~~the step of:~~
- ~~(d)~~ in response to the server receiving the Force Master command, sending a Drop Master command from the server to the master client.
9. (Currently Amended) The method of claim 8 further including ~~the step of:~~
- ~~(e)~~ sending from the master client to the server a Drop Master acknowledgement and causing the master client to enter passive client mode.
10. (Currently Amended) The method of claim 9 further including ~~the step of:~~
- ~~(f)~~ restarting the drop ratio counter in the passive client after the Drop Master command has been sent from the server.
11. (Currently Amended) The method of claim 10 further including ~~the step of:~~
- ~~(g)~~ sending from the server a Force Master acknowledge to the passive client that issued the Force Master command.
12. (Currently Amended) The method of claim 11 further including ~~the step of:~~
- ~~(h)~~ after the passive client receives the Force Master acknowledge, receiving the packets from the server as the new master client.
13. (Currently Amended) A multicast network system, comprising:
- a server for multicasting packets over the network;
- a current master client that controls the rate of multicast transfer of the packets

based upon a processing speed of the current master client; and

at least one passive client executing an algorithm for:

~~(a)~~ counting a number of packets dropped during a multicast transfer;

~~(b)~~ computing a drop ratio when the count of the number of packets dropped

reaches a predetermined count threshold; and

~~(c)~~ if the drop ratio reaches a configurable threshold, sending a Force Master command to the server requesting to become a new master client, thereby adaptively determining which client becomes the master client in real-time unless the passive client is faster than the current master client.

14. (Original) The system of claim 13 wherein in response to the server receiving the Force Master command, sending a Drop Master command from the server to the master client.

15. (Original) The system of claim 14 wherein from the master client sends a Drop Master acknowledgement to the server and enters passive client mode.

16. (Original) The system of claim 15 wherein the passive client restarts the drop ratio counter after the Drop Master command has been sent from the server.

17. (Original) The system of claim 16 wherein the server sends a Force Master acknowledge to the passive client that issued the Force Master command.

18. (Original) The system of claim 17 wherein after the passive client receives the Force Master acknowledge, the passive client receives the packets from the server as the new master client.

19. (Currently Amended) A computer-readable medium containing program instructions for increasing performance within a multicast network in which a server transfers multicast packets to a master client and at least one passive client, the program instructions for:

- ~~(a)~~ determining, by the passive clients during the multicast transfer, which is a slowest client based on which client drops a highest number of packets; and
- ~~(b)~~ making the slowest client the master client, thereby adaptively determining which client becomes the master client to minimize network traffic when the slowest passive device is slower than the master client and not assigning the slowest passive client as master client when the slowest passive client is faster than the master client; and  
wherein determining, by the passive clients during the multicast transfer, which is a slowest client based on which passive client drops a highest number of packets and wherein the instruction further includes the instruction of:
  - ~~(i)~~ counting, by the passive client, a number of packets dropped during a multicast transfer;
  - ~~(ii)~~ computing a drop ratio when the count of the number of packets dropped reaches a predetermined count threshold; and
  - ~~(iii)~~ if the drop ratio reaches a configurable threshold, sending a Force Master command to the server requesting to become a new master client.

20. (Cancelled)

21. (Currently Amended) The computer-readable medium of claim 19 wherein ~~instruction (b)~~ making the slowest client the master client, thereby adaptively determining which client becomes the master client to minimize network traffic further includes the instruction of:

(i) in response to the server receiving the Force Master command, sending a Drop Master command from the server to the master client.

22. (Currently Amended) The computer-readable medium of claim 21 wherein ~~instruction (b)~~ making the slowest client the master client, thereby adaptively determining which client becomes the master client to minimize network traffic further includes the instruction of:

(ii) sending from the master client to the server a Drop Master acknowledgement and causing the master client to enter passive client mode.

23. (Currently Amended) The computer-readable medium of claim 22 wherein ~~instruction (b)~~ making the slowest client the master client, thereby adaptively determining which client becomes the master client to minimize network traffic further includes the instruction of:

(iii) restarting the drop ratio counter in the passive client after the Drop Master command has been sent from the server.

24. (Currently Amended) The computer-readable medium of claim 23 wherein ~~instruction (b)~~ making the slowest client the master client, thereby adaptively determining which client becomes the master client to minimize network traffic further includes the instruction of:

(iv) sending from the server a Force Master acknowledge to the passive client that issued the Force Master command.